DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ROUND POND, NORTH	Lake Area (ha):	5.26
Town: WINCHESTER	Maximum depth (m):	3.5
County: Cheshire	Mean depth (m):	2.1
River Basin: Connecticut	Volume (m³):	107500
Latitude: 42°50'52" N	Relative dépth:	1.3
Longitude: 72°27'06" W	Shore configuration:	1.00
Elevation (ft): 1050	Areal water load (m/yr)	
Shore length (m): 800	Flushing rate (yr^{-1}) :	1.10
Watershed area (ha): 24.1	P retention coeff.:	0.80
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:	18 February 1993	26 August 1992	
DOM. PHYTOPLANKTON (% TOTAL) #	DINOBRYON 90%	CHRYSOSPHAERELLA 95%	
#:	2		
#:	3		
PHYTOPLANKTON ABUNDANCE (cells/mL		2115	
CHLOROPHYLL-A (µg/L)		8.37	
DOM. ZOOPLANKTON (% TOTAL) #:	KERATELLA 49%	KERATELLA 39%	
#:	CALANOID COPEPODS 19%	NAUPLIUS LARVA 29%	
#	NAUPLIUS LARVA 14%	POLYARTHRA 12%	
ROTIFERS/LITER	197	159	
MICROCRUSTACEA/LITER	131	100	
ZOOPLANKTON ABUNDANCE (#/L)	342	259	
VASCULAR PLANT ABUNDANCE		Common	
SECCHI DISK TRANSPARENCY (m)		3.5 Visible on bottom	
BOTTOM DISSOLVED OXYGEN (mg/L)	7.6	7.9	
BACTERIA (E. coli, #/100 ml) #		< 10	
#:	2		
#:	3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL: Lake: ROUND POND, NORTH Town: WINCHESTER					
	18 Febru	ebruary 1993 26 August 1992			
DEPTH (m)	1.5		1.0		3.0
pH (units)	5.7		6.1		6.1
A.N.C. (Alkalinity)	2.1		1.0		1.3
NITRATE NITROGEN	< 0.02		< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.22		0.25		0.35
TOTAL PHOSPHORUS	0.010		0.012	,	0.014
CONDUCTIVITY (µmhos/cm)	20.1		15.7		15.7
APPARENT COLOR (cpu)	20		18		21
MAGNESIUM			0.25		
CALCIUM			1.0		
SODIUM			1.2		
POTASSIUM			< 0.40		
CHLORIDE	< 3		< 3		< 3
SULFATE	4		3		4

All results in mg/L unless indicated otherwise

22

TROPHIC CLASSIFICATION: 1992

CALCITE SATURATION INDEX

TN : TP

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	3	2	7	Meso.

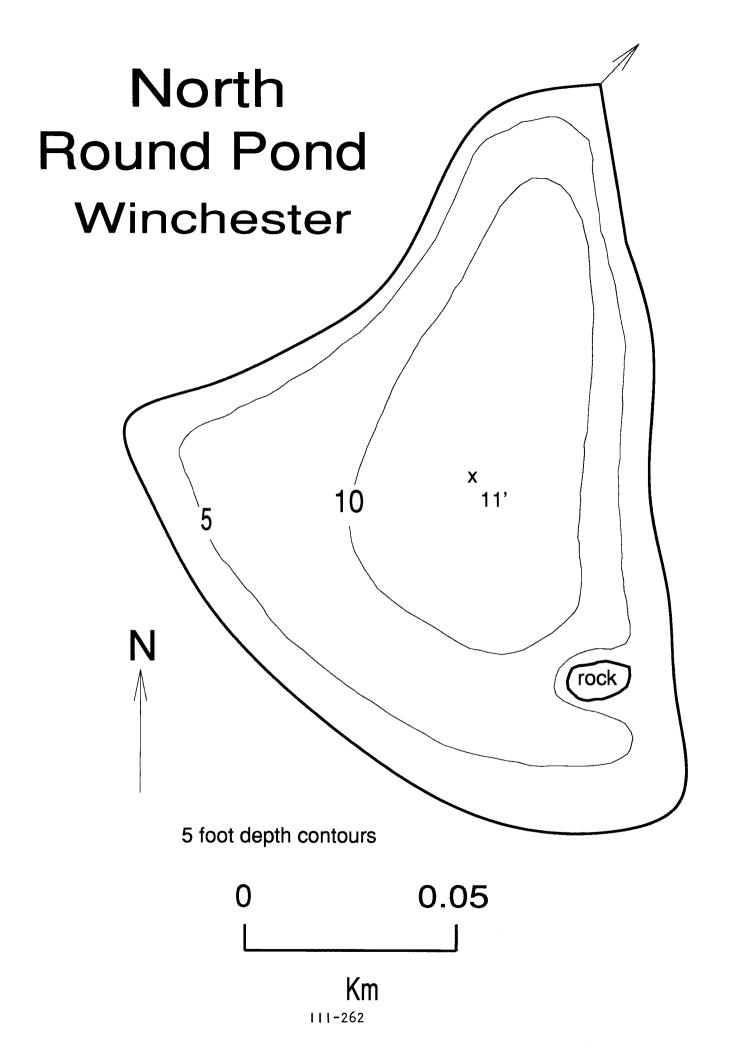
21

5.2

25

COMMENTS:

- 1. This is a relatively remote pond located within Pisgah State Park. It was surveyed jointly with the Fish and Game Department.
- 2. Sometimes called Round Pond.
- 3. Foot access only.
- 4. Fish and Game netted no fish in two gill net sets.
- 5. Diatoms (75%) dominated the wholewater phytoplankton, with <u>Synedra</u> (60%) and <u>Rhizosolenia</u> (12%) the dominant genera.



FIELD DATA SHEET

LAKE: ROUND POND, NORTH

DATE: 08/26/92

TOWN: WINCHESTER

	20111	** ***			•
WEATHER:	VERY	HOT	&	HUMID	

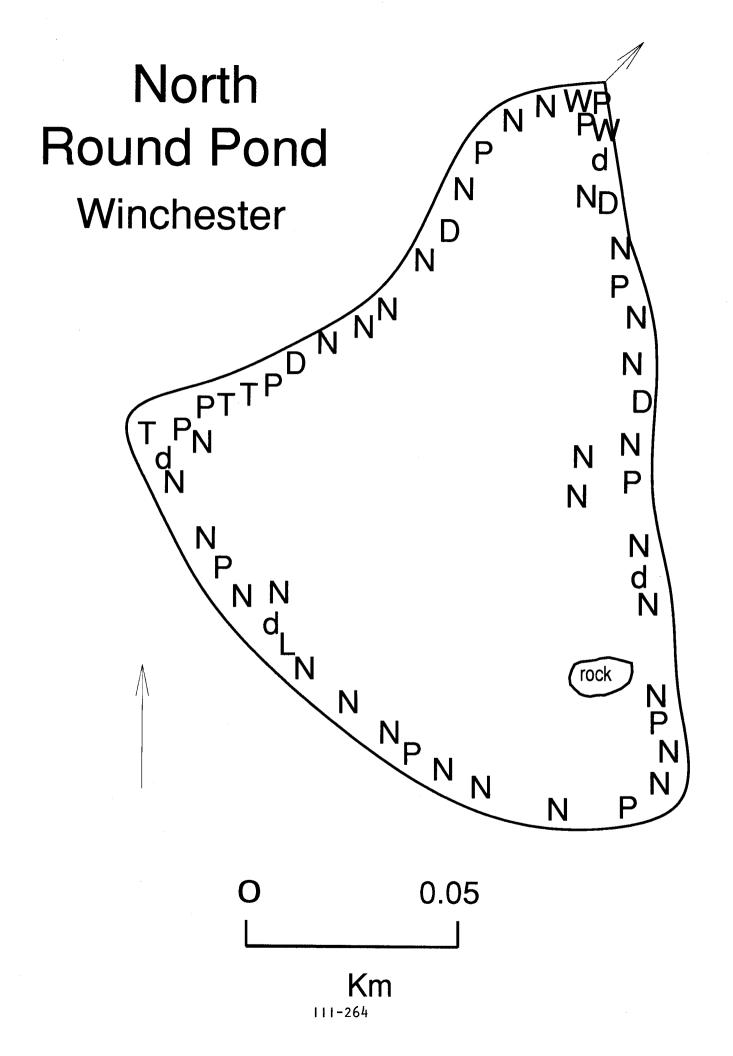
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	23.0	9.0	105 %
0.5	23.0	9.0	105 %
1.0	22.6	8.8	99 %
1.5	22.1	9.0	103 %
2.0	21.8	10.1	113 %
2.5	21.0	9.4	105 %
3.0	20.5	7.9	85 %
		· .	

SECCHI DISK (m): 3.5 VOB COMMENTS:

BOTTOM DEPTH (m): 3.5

TIME: 1030

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: ROUND POND, NORTH	TOWN: WINCHESTER	DATE: 08/26/92	
PLANT NAME				
Key	GENERIC	COMMON	ABUNDANCE	
N	Nymphaea	White water lily	Common	
С	Chamaedaphne calyculata	Leatherleaf	Abundant	
P	Pontederia cordata	Pickerelweed	Scattered	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
Т	Typha	Cattail	Sparse	
W	Potamogeton	Pondweed	Sparse	
D	Decodon verticillatus	Swamp loosestrife	Sparse	
L	Lobelia dortmanna	Water lobelia	Sparse	
<u> </u>				
OVERALL ABUNDANCE: Common				

GENERAL OBSERVATIONS:

 Leatherleaf was abundant around the entire shoreline, but was generally not in the water. It is not depicted on the map and is not included in the overall abundance rating.